

## ABSTRACT OF THE DISCLOSURE

A light deflector is composed of an electro-optic photonic crystal in which refraction angle of light incident from outside can be controlled by controlling an electric field applied to the electro-optic photonic crystal so as to change the refractive index of the material constituting the photonic crystal and in which the change in the refraction angle in response to the change in the unit refractive index of the material is  $10^3$  degrees or more. An optical switch includes the light deflector and a photonic crystal waveguide, the photonic crystal waveguide having a photonic bandgap for light of a predetermined wavelength and also having at least one waveguide which passes the light of the predetermined wavelength.